

B Docket
11-109

THE UNIVERSITY OF NEW MEXICO
Department of Biology
Castetter Hall
Albuquerque, NM 87131



FILED/ACCEPTED

AUG - 9 2011

Phone: (505) 277-6303

FAX: (505) 277-5355

e-mail: scollins@sevilleta.unm.edu

8 July 2011

Federal Communications Commission
Office of the Secretary

To Whom It May Concern:

On behalf of the Long Term Ecological Research Network I wish to express our concern about the LightSquared LTE wireless network plans and its impact on scientific research using existing GPS technology:

The Long Term Ecological Research Network (LTER) is a Program of the National Science Foundation involving 26 research sites and more than 1500 scientists, researching long-term ecological changes on the planet. The LTER Program has invested and depends heavily on continuous access to GPS technology and it is critical to its research mission. The LTER Program depends on GPS to precisely locate long-term research locations, track animals on a continuous basis, and to collect streaming data from moving rovers as only a few examples of GPS use in LTER research. The impact of the proposed LightSquared system is significant because it will be using a high-powered system and frequencies (L band) normally used to transmit data to and from relatively low-power space-based satellites including GPS. The proposed use of very high power ground-based transmitters (a network of 40,000 new cell towers) will simply swamp the weak GPS signals we even now struggle to receive and depend on. If current plans for the LightSquared implementation is not rescinded, the research of the entire program funded by the National Science Foundation, and ultimately all taxpayers is in jeopardy.

Concern has already been raised by the aviation, automotive, construction, agriculture industries and even the US military. LightSquared simply can't operate within the spectrum given to them by the FCC without impacting the everyday services GPS users now depend on.

The current plan for LightSquared to limit its allocated spectrum use, still within the Mobile Satellite Spectrum (MSS), is not a solution. I will still impact high precision GPS receivers already in use across the Network. The power of the LightSquared base stations will still overwhelm the weak GPS signals. GPS was here first and LightSquared should be required to change their plans for use of the MSS band and use a frequency spectrum that will not interfere with any GPS receivers. No current GPS user should be required to change existing infrastructure to accommodate a new commercial operation of a single company.

Sincerely,

Scott L. Collins
Professor, Department of Biology
PI, Sevilleta LTER Program
Chair, US LTER Network